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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,373	12/08/2003	Markus Beylich	037141.53041US	8145
23911	7590	11/30/2005	EXAMINER	
CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300			TRAN, BINH Q	
			ART UNIT	PAPER NUMBER
			3748	

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/729,373

Applicant(s)

BEYLICH ET AL.

Examiner

BINH Q. TRAN

Art Unit

3748

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the amendment filed September 07, 2005.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-5 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The added material which is not supported by the original disclosure is as follow: the step of “sensing the continuous position of the accelerator pedal” is disclosed in claims 1 and 3. Applicants are required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty

Art Unit: 3748

defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-3, and 5 are rejected as far as they are definite, under 35 U.S.C. 102 (b) as being anticipated by Miyagi (Patent Number 4,207,737).

Regarding claims 1 and 3, Miyagi discloses a method of controlling a secondary air stream (8) in an exhaust system (7) of an internal combustion engine (1) of a motor vehicle equipped with an accelerator pedal (e.g. 60), wherein engine actuation signals and sensor signals (e.g. 11, 17, 59) from an engine control system (12) are evaluated in a secondary air control unit and used as control parameters for regulating the secondary air stream, said method comprising sensing the continuous position of the accelerator pedal, transmitting a signal representing the sensed position of the accelerator pedal to the secondary air control unit, and regulating the secondary air stream in response to the sensed position of the accelerator among other control parameters (e.g. See Fig. 8; col. 7, lines 2-67; col. 8, lines 1-5).

Regarding claim 2, Miyagi further discloses that the sensed position of the accelerator pedal is evaluated in a central engine control and used to control at least one other engine function (e.g. See col. 7, lines 2-67; col. 8, lines 1-5).

Regarding claim 5, Miyagi further discloses that means for transmitting the signal representing detected mechanical displacements of the accelerator pedal to the control unit for regulating the introduction of secondary air into the exhaust system comprises a vehicle-internal bus system which also transmits said signal to other engine control systems (e.g. See Fig. 8; col. 7, lines 2-67; col. 8, lines 1-5).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyagi in view of Nagami et al. (Nagami) (Patent Number 5,388,403).

Regarding claim 4, Miyagi discloses all the claimed limitation as discussed above except that a storage catalytic converter connected downstream of said catalytic converter.

Nagami teaches that it is conventional in the art, to use a storage catalytic converter (20) connected downstream of said catalytic converter (17) (e.g. See col. 2, lines 20-56).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to use a storage catalytic converter connected downstream of said catalytic converter of Miyagi, as taught by Nagami for the purpose of absorbing the NO_x when the air-fuel ratio of the exhaust gas flowing into the absorbent is lean, and releasing the NO_x when the air-fuel ratio of the exhaust gas flowing into the absorbent is rich; so as to reduce the poisoned materials in the purifying catalyst and to reduce amount of nitrogen oxides in the exhaust gas of the lean-burn engine, and further improve the performance of the engine and the efficiency of the emission device.

Response to Arguments

Applicant's arguments filed September 07, 2005 have been fully considered but they are not completely persuasive. ***Claims 1-5 are pending.***

Applicant's cooperation in explaining the claims subject matter more specific to overcome the claim rejection is appreciated.

Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection as discussed above.

Applicants have argued that Miyagi does not teach or suggest Applicants's claimed invention. More specifically, Applicants assert that the reference to Miyagi fails to disclose the steps of sensing the continuous position of the accelerator pedal, transmitting a signal representing the sensed position of the accelerator pedal to the secondary air control unit. The examiner respectfully disagrees, in column 7, lines 25-67; and column 8, lines 1-5, Miyagi has clearly disclosed that "Referring to FIG. 8, shown therein is an eighth embodiment of an apparatus for controlling a secondary air injection in accordance with the teachings of the present invention. In this eighth embodiment, an accelerator switch 59 is used as an acceleration detection mechanism. This accelerator switch 59 is installed near the accelerator pedal 60 and is designed so that it is on when the accelerator is not depressed and off when the accelerator pedal is depressed beyond a given point. The control means 12 is so designed that it sends a secondary air increase signal when an "off" signal is transmitted from the accelerator switch 59. Since the remaining components of the eighth embodiment are essentially the same as those shown in the fourth embodiment, they are given the same referenced numerals and the

Art Unit: 3748

description of their operation and innerconnection is omitted at this point. In operation, when the engine is started from idle or accelerated after shifting gears, the accelerator pedal 60 is usually depressed from its "release" position. When the acceleration pedal 60 is depressed beyond a given point, the accelerator switch 59 is turned off, thereby causing a signal S8 to be sent to the control means 12 and the control means 12 activates the air control valve 9 via actuator 13 so that the amount of secondary air is increased. At the same time, the control means 12 is caused to disregard the signals from the air to fuel ratio sensor 11 so that feedback control from the air to fuel ratio sensor 11 is terminated. The secondary air increase signal output of the control means 12 is terminated within a short period of time, e.g. 1 second, whereupon feedback control of the amount of secondary air injection is resumed by the air to fuel ratio sensor 11. Furthermore, the accelerator switch 59 does not necessarily have to be attached in the position shown in FIG. 8, so long as it can be activated by movement of the accelerator pedal 60. It should be apparent from the foregoing that with the apparatus for controlling secondary air injection of the present invention, it is possible to sense either quickly or simultaneously any sudden acceleration, e.g. after shifting gears, etc., and to increase in response thereto the amount of secondary air injected. Accordingly, the present invention is able to quickly supply the amount of secondary air needed when the amount of unburned components of the exhaust gas is increased thereby causing the combustion of these components. Furthermore, the present invention has been very effectively designed to prevent the emission of large amounts of carbon monoxide into the atmosphere". It is clearly that Miyagi has showed a sensor for detecting mechanical displacement of the accelerator pedal or a step of sensing the position of the accelerator pedal.

Applicant's amendment (Claims 1-5) necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL See MPEP, 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Binh Tran whose telephone number is (571) 272-4865. The examiner can normally be reached on Monday-Friday from 8:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reach on (571) 272-4859. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BT
November 24, 2005



Binh Q. Tran
Patent Examiner
Art Unit 3748